

ENVIRONMENTAL ASSESSMENT
Fisheries Division
Montana Fish, Wildlife & Parks
Dry Creek Fish Passage

General Purpose: The 1995 Montana Legislature enacted sections 87-1-272 through 273, MCA that direct Montana Fish, Wildlife & Parks (FWP) to administer a Future Fisheries Improvement Program (FFIP). The program involves providing funding for physical projects to restore degraded fish habitat in rivers and lakes for the purpose of improving wild fisheries. The legislature established an earmarked funding account to help accomplish this goal. Additionally, the 1999 Montana Legislature amended statute sections 87-1-273, 15-38-202 and Section 5, Chapter 463, Laws of 1995 to create a bull trout and cutthroat trout enhancement program. This legislation was amended again in 2013 to open the program to all native fish species (statute section 87-1-283). The program now calls for the enhancement of native fish through habitat restoration, natural reproduction and reductions in species competition by way of the FFIP.

The FFIP tentatively plans to provide partial funding toward the reconnection of Dry Creek with the East Gallatin River. The project would install a fish bypass around a diversion on the Dry Creek Canal. Currently, fish migrating upstream in Dry Creek are blocked at the canal and downstream migrants are likely lost into the canal. The goal is to increase connectivity and reduce entrainment, which will allow fish to use significantly more habitat in the Dry Creek drainage.

I. Location of Project:

This project will be conducted on Dry Creek, a tributary to the East Gallatin River, located near Belgrade within Township 1N, Range 4E, Section 3 in Gallatin County (Figure 1). The project site intersects the Dry Creek Ditch Company Canal.

II. Need for the Project:

One goal within FWP's Statewide Fisheries Management Plan for the fisheries management program is to "restore and enhance degraded fisheries habitats." By implementing an improvement project and reconnecting important habitat and migratory corridors, this proposed project would help meet this goal. This project will reconnect the habitat and improve migration corridors for trout and other species that will use Dry Creek and recruit to the East Gallatin River. This project, combined with the other projects, will re-establish a tributary and add additional habitat for aquatic species.

III. Scope of the Project:

The project will reconnect the lower reaches of Dry Creek below the canal with its upper reaches to help restore the fishery. A fish bypass structure would be installed to route flows around the Dry Creek Canal (Figure 2). A box culvert would be installed under the canal on the east side of the diversion to pass fish while retaining the existing diversion. There would be minimal modifications to the Dry Creek Canal

Company's infrastructure but fish passage would still be obtained at the site, which meets the needs of all the partners. The bypass would have a maximum water velocity of 4 ft/second, a minimum water depth of 0.5 feet, a maximum outlet drop of 0.5 feet, low passage flow of 20 cfs, and a high passage flow of 40 cfs. The passable flow range is 24 to 40 cfs.

This project is expected to cost \$121,987. Of this total, the FFIP would be contributing up to \$48,521 to complete the project.

Contributor	In-kind services	In-kind cash
Dry Creek Partners		\$72,7774
Trout Unlimited	\$692	
Gillian Associates	\$550	
Volunteer Labor		
Matching Contributions = \$74,016		



Map of proposed Walker Property project and relationship to its confluence with the East Gallatin River, the Dry Creek Canal, and the proposed upstream 319 grant funded project.

Figure 1.



Map of Walker property (outlined in blue) with proposed restoration reach (in red), fish bypass (yellow) and Dry Creek Canal (in light green), from Montana Cadastral website.

Figure 2.

IV. Environmental Impact Review Checklist:

Evaluation of the impacts of the Proposed Action including secondary and cumulative impacts on the Physical and Human Environment

Project Title: Dry Creek Channel Restoration

Division/Bureau: Fisheries Division (FFIP)

Description of Project: The project would install a fish bypass around a diversion on the Dry Creek Canal. Currently, fish migrating upstream in Dry Creek are blocked at the canal and downstream migrants are likely lost into the canal. The goal is to increase connectivity and reduce entrainment, which will allow fish to use significantly more habitat in the Dry Creek drainage.

A. POTENTIAL IMPACTS TO THE PHYSICAL ENVIRONMENT

Will the proposed action result in potential impacts to:	Unknown	Potentially Significant	Minor	None	Can Be Mitigated	Comments Provided
1. Geology and soil quality, stability and moisture				X		
2. Air quality or objectionable odors				X		

3. Water quality, quantity and distribution (surface or groundwater)			X			X
4. Existing water right or reservation				X		X
5. Vegetation cover, quantity and quality			X			X
6. Unique, endangered, or fragile vegetative species				X		
7. Terrestrial or aquatic life and/or habitats			X			X
8. Unique, endangered, or fragile wildlife or fisheries species				X		
9. Introduction of new species into an area				X		
10. Changes to abundance or movement of species			X			X

B. POTENTIAL IMPACTS ON THE HUMAN ENVIRONMENT

Will the proposed action result in potential impacts to:	Unknown	Potentially Significant	Minor	None	Can Be Mitigated	Comments Provided
1. Noise and/or electrical effects				X		
2. Land use				X		
3. Risk and/or health hazards				X		
4. Community impact				X		
5. Public services/taxes/utilities				X		
6. Potential revenue and/or project maintenance costs				X		
7. Aesthetics and recreation			X			X
8. Cultural and historic resources				X		X
9. Evaluation of significance				X		
10. Generate public controversy				X		

V. Explanation of Impacts to the Physical Environment

3. Water quantity, quality, and distribution.

No changes in streamflow would occur in Dry Creek as a result of the proposed project. The proposed bypass channel would not divert additional water, but streamflow would be split between the diversion and bypass channel at certain times of the year to encourage fish passage. A 318 authorization will be obtained, if necessary, to meet short-term water quality standards during project construction. Overall, the project will maintain distribution of water for irrigation

yet improve conditions for fish species.

4. Existing water right or reservation

This project will add a bypass channel that will be able to route water around a diversion structure for the benefit of fish species, but it will not impact existing water rights.

5. Vegetation cover, quantity and quality

There would be minor impacts to vegetation due to construction of the fish passage bypass structure. The use of construction equipment will disturb vegetation; however, the impact will be minimized, best management practices will be followed, and the area will be reclaimed and reseeded using native seed mixes. Impacts are considered temporary.

7. Terrestrial or aquatic life and/or habitats.

This project would impact aquatic life by reconnecting stream habitat in Dry Creek. The result is expected to be positive, due to the increased access to spawning and rearing habitat previously limited by the barrier. Combined with additional projects outside the scope of this EA, additional, quality habitat would be created for migratory trout.

10. Changes to abundance or movement of species.

The proposed project will open access to additional habitat and minimize entrainment into a canal. This is expected to have a positive impact on the abundance and movement of species. Fish will be able to migrate up Dry Creek and access previously inaccessible habitat. This is particularly important in the summer when water temperatures in the East Gallatin River are increased. Dry Creek provides cooler water and holding and rearing cover that is expected to improve survival and recruitment, which directly relates to abundance of fish. A reduction in entrainment is also expected to have a positive affect on abundance as fewer fish would be lost in the canal.

VI. Explanation of Impacts to the Human Environment

7. Aesthetics and recreation.

This project could have a positive impact on recreational angling in the East Gallatin River due to an increase in fish abundance resulting from additional habitat for holding, spawning, and rearing.

8. Cultural and historic resources.

No cultural or historical resource impacts are anticipated. However, the State Historical Preservation Office will be notified of the project, and any potential concerns will be addressed.

VII. Narrative Evaluation and Comment.

There are no anticipated cumulative effects.

VIII. Discussion and Evaluation of Reasonable Alternatives.

1. No Action Alternative.

If no funding is provided through the FFIP, either the applicant would have to seek additional sources of funding to complete the project, or the affected area of Dry Creek would not gain habitat connectivity and reduced entrainment. Dry Creek would continue to be separated from the mainstem, preventing fish movement upstream of the diversion.

2. The Proposed Alternative.

The proposed alternative intends to provide partial funding through the FFIP to restore Dry Creek and reconnect valuable tributary habitat to the East Gallatin River.

IX. Environmental Assessment Conclusion Section.

1. Other groups or agencies contacted or which may have overlapping jurisdiction:

Gallatin Conservation District, US Army Corps of Engineers, Department of Environmental Quality, State Historic Preservation Office.

2. Evaluation and listing of mitigation, stipulation, or other control measures enforceable by the agency or another government agency:

None.

3. Is an EIS required?

No. We conclude, from this review, that the proposed activities will have an overall positive impact on the physical and human environment, and will therefore not require the extensive analysis associated with an EIS.

4. Level of public involvement.

The project application to the FFIP has been posted on the FWP webpage for public comment. No comments have been received to date. The proposed project was reviewed and supported by the public review panel of the FFIP. The proposed project also will be reviewed by the Fish & Wildlife Commission, and funding will be contingent upon their approval. The EA will be

distributed to all individuals and groups listed on the cover letter and will be published on the FWP webpage: www.fwp.mt.gov.

5. Duration of comment period?

Public comment will be accepted through 11:59 February 4th 2018.

6. Person(s) responsible for preparing the EA.

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